

REMARKS

Claims 1-4, 6-9, 11, 13, and 21-27 are pending in the application. Claims 1-4, 6-9, 11, 13, and 21-27 stand rejected by the Examiner. Claim 24 is cancelled. Claims 1, 6, and 11 are amended. Claims 28-30 are new. No new matter is added. Reconsideration and allowance of the pending claims is respectfully requested in light of the above amendments and the following remarks.

Specification

The Examiner objected to the specification in the Office Action Summary (PTOL-326). However, it is believed that applicant's March 31, 2010, response was responsive to the Examiner's specification objections set forth in the Office Action of December 1, 2009. Applicant respectfully requests that the Examiner withdraw the objection to the specification.

In addition, the specification is amended to correct typographical errors as set forth in detail above. Specifically, in the paragraph beginning at page 6, line 13 of the specification as originally filed a period is added at the end of the word "formats" to end the sentence. In the paragraph beginning at page 6, line 23, a period is added at the end of the word "interest" to end the sentence. In the paragraph beginning at page 6, line 14, the mistype "doe" is corrected to be --do--. In the paragraph beginning at page 13, line 12, the duplicate word "only" is deleted. In the paragraph beginning at page 20, line 21, the word "This" is replaced with the word --These--. In the paragraph beginning at page 20, line 27, the term "CPEC" is replaced with --CSPEC--. In the paragraph beginning at page 22, line 8, a stray '>' symbol is deleted and replaced with a period --..-. In the paragraph beginning at page 24, line 16, a stray '\ ' symbol is deleted. In the paragraph beginning at page 24, line 25, the mistype "Connect ion" is replaced with --connection--. No new matter is added. Correction is respectfully requested.

Claim Rejections - 35 U.S.C. 103

Claims 1-4, and 24-27 stand rejected under 35 U.S.C. §103(a) as being unpatentable over W. Richard Stevens, "UNIX Network Programming", 1990, (hereinafter Stevens) in view of Raphaeli et al (US 20030103521, hereinafter Raphaeli). The rejection is respectfully traversed.

Claim 1 has been amended to incorporate the elements of claim 24, and claim 24 has been canceled. Claim 1 now sets forth, in part, “applying the classifier rules includes applying the classifier rules to the application data in an order defined by the priorities of the classifier rules.”

The Office Action at page 8 suggests that the function socket () at page 267 of Stevens discloses this element. The function socket (), however, fails to apply classifier rules in an order defined by priorities. While the SOCK_STREAM type may have a higher priority than the SOCK_DGRAM type, no order of application of the rules to the application data is specified in Stevens, let alone an order based on priorities. Raphaeli fails to remedy Stevens because nowhere does Raphaeli disclose or even mention an order defined by the priorities of classifier rules, much less applying the classifiers rules in the particular order.

Stevens teaches family values and a type such as the SOCK_DGRAM type and a SOCK_STREAM type. Stevens does not disclose, however, when to apply any particular rule. Rather, a call to the function socket() passes the family value and the type parameter and the function returns a small integer value, similar to a file descriptor (*See* Stevens, pages 267 and 269), and no order of application of rules is established.

In other words, nowhere does Stevens suggest an order of application of family values, much less based on the types. The specifics of the implementation of the functional call are akin to a black box, and in any case, the family value applied (e.g., AF_UNIX, AF_INET, AF_NS, or AF_IMPLINK) are not applied in any particular order except perhaps as determined by the source code making a call to the function. There is no order discussed either expressly or impliedly, much less one dictated by the types (SOCK_DGRAM, SOCK_STREAM, etc.).

The Office Action at page 3 relies on ‘common knowledge’ that “data transmitted through a stream socket has a higher priority than data transmitted through a datagram socket” and cites for support Hagirahim et al. (U.S. 2002/0181401). Even when, however, a stream socket such as the SOCK_STREAM type has a higher priority than a datagram socket such as the SOCK_DGRAM type, it nevertheless remains that neither Stevens nor Raphaeli disclose the limitations of amended claim 1, namely, applying the classifier rules to the application in an order defined by the priorities of the classifier rules.

For at least this reason, the Applicant submits that claim 1 is patentable under 35 U.S.C. 103(a) over Stevens and Raphaeli, and is in proper form for allowance.

Claims 2-4 and 26-27 depend from claim 1 and inherently contain all of the features of claim 1. Consequently, claims 2-4 and 26-27 are allowable over the combination of Stevens and Raphaeli at least because any claim that depends from a nonobvious independent claim is also nonobvious.

Claim 25 sets forth, in part, “if multiple classifier rules include an identical connection identifier, applying the classifier rules includes applying the classifier rules including the identical connection identifier to the application data in an order defined by the priorities of the classifier rules including the identical connection identifier.”

The Office Action at page 9 suggests that the return code of the function socket() at page 267 of Stevens is the identical connection identifier included in multiple classifier rules. However, even assuming for a moment that the return code is the identical connection identifier (which the applicant disputes because the return code is not included in the classifier rules, nor are identical return codes taught by Stevens), then the family values (the alleged classifier rules) are still not applied to the application in an order defined by priorities of the family values. Nowhere does Stevens suggest any particular order of application of the family values. For at least these reasons, and for the reasons set forth above with respect to claim 1, claim 25 is also in allowable form.

Claims 6-7, 9 and 21-23 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Andrew S. Tanenbaum “Computer Networks,” Fourth edition, 08/09/2002 (hereinafter Tanenbaum) in view of Stevens, further in view of Kurupati, et al. (U.S. Publication No. 2003-0182291, hereinafter Kurupati).

Claim 8 stands rejected under 35 U.S.C. §103(a) as being unpatentable over S. Tanenbaum in view of Stevens and Kurupati, further in view of Malkin (U.S. Patent No. 6,272,145 B1).

The rejections are respectfully traversed.

Claim 6 has been amended to clarify that the order of rules is defined by the rule priorities of the classifier rules, and that rules are applied to the data packet in the order defined by the rule priorities when the connection identifier included in the rules is the same. Support for this amendment can be found at, for example, at Figure 4; page 5, lines 14-22; page 11, lines 7-

24; and page 12, lines 1-12 and associated table defining Rule Priority, of the specification as originally filed.

The Office Action at page 11 suggests that the function `socket()` at page 267 of Stevens discloses the element of applying the rules, “including when applying a particular rule to the data packet.” The Applicant respectfully disagrees. While Stevens teaches family values and a type such as the `SOCK_DGRAM` type and a `SOCK_STREAM` type, Stevens does not disclose when to apply any particular rule. Rather, a caller to the function `socket()` passes the family value and the type parameter and the function returns a small integer value, similar to a file descriptor (*See* Stevens, pages 267 and 269), and no order of application of rules is established.

As mentioned above, nowhere does Stevens suggest an order of application of family values, much less based on the types. In Stevens, the family values (e.g., `AF_UNIX`, `AF_INET`, `AF_NS`, or `AF_IMPLINK`) are not applied in any particular order. There is no order discussed either expressly or impliedly, much less one dictated by the types (`SOCK_DGRAM`, `SOCK_STREAM`, etc.). We are essentially left to presume that the function is called with the parameters passed to the function as set forth in whatever source code makes use of this function, and a value is returned, i.e., the small integer value.

Thus, Stevens fails to disclose “determining an order of rules associated with the classifier to apply to the data packet, where each rule includes a rule priority, at least two of the rules include a same connection identifier, and where the order of rules is defined by the rule priorities of the classifier rules; and applying the rules to the data packet in the order defined by the rule priorities of the classifier rules when the connection identifier is the same, including when applying a particular rule to the data packet.”

The Office Action at page 12 suggests that Kurapati discloses “using priority of each of the rules.” The language at issue here has been deleted from claim 6. Nevertheless, Applicant would like to point out that the feature discussed in Kurapati is to determine a priority of data contained in a packet, not to determine an order in which rules are applied to the packet where the order is defined by the rule priorities.

Tanenbaum also fails to remedy the deficiencies of Stevens and Kurapati, at least in these respects.

For at least these reasons, the Applicant submits that claim 6 is patentable under 35 U.S.C. 103(a) over Tanenbaum, Stevens, and Kurapati, and is in proper form for allowance.

Claims 7, 9, and 21-23 depend from claim 6 and inherently contain all of the features of claim 6. Consequently, claims 7, 9, and 21-23 are allowable over the combination of Tanenbaum, Stevens, and Kurapati at least because any claim that depends from a nonobvious independent claim is also nonobvious.

Claims 11 and 13 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Stevens in view of Hogan, et al. (U.S. Patent No. 4,841,456) hereinafter Hogan. The rejection is respectfully traversed.

Claim 11 has been amended to clarify that the order of rules is defined by the priorities of the sets of parameters, and that first and second sets of parameters are applied to the data packet in the order defined by the priorities of the sets of parameters when the connection identifier is the same for both the first and the second sets of parameters. Support for this amendment can be found at, for example, at Figure 4; page 5, lines 14-22; page 11, lines 7-24; and page 13, lines 1-12 and associated table defining Rule Priority, of the specification as originally filed.

The Office Action at page 15 suggests that *family, type, protocol* of Stevens' function socket() are the plurality of sets of parameters, and also proposes that different types of sockets have different types of parameters. The Applicant agrees that different types of sockets have different types of parameters. Indeed, nowhere does Stevens teach that two different sockets are associated with the same connection identifier, much less applying the first and second sets of parameters to the data packet in the order defined by the priorities of the sets of parameters when the connection identifier is the same for both the first and the second sets of parameters.

Hogan also fails to disclose a first set of parameters associated with a connection identifier and a second set of parameters associated with the same connection identifier. Hogan teaches that a "typical priority rule might be that the rule having the highest number of conditions (i.e., a specific rule) has priority over a rule having a smaller number of conditions (i.e., a more general rule)." Hogan, column 8, lines 28-31. Connection identifiers are not discussed in Hogan. The application of a rule in Hogan is based on the number of conditions of the rule, not on whether the sets of parameters are associated with the same connection identifier, as set forth in amended claim 11. Neither Stevens nor Hogan teach each of the elements of claim 11, whether viewed individually or in combination one with another.

For at least these reasons, the Applicant submits that claim 11 is patentable under 35 U.S.C. 103(a) over Stevens and Hogan, and is in proper form for allowance. Claim 13 depends from claim 11 and is allowable based on this dependency and for its own merits.

New Claims

New claim 28 sets forth the method of claim 1, "wherein transmitting through a connection includes transmitting through each of at least three connection types including a continuous grant service (CGS) type, a period grant service (PGS) type, and a priority aperiodic grant service (PAGS) type."

New claim 29 sets forth the method of claim 28, "wherein the connection having the CGS type is one in which the connection is continually monitored or used, the PGS type is one in which the connection is used for isochronous applications, and the PAGS type is one in which the connection is used for high-priority traffic and low priority best effort applications."

New claim 30 sets forth the method of claim 28, "further comprising connecting the application to the connection using one of at least three different connection processes, each connection process corresponding to one of the at least three connection types."

Support for these new claims can be found at, for example, page 20, line 34 to page 22, line 21 of the specification as originally filed and Figures 6a, 6b, and 6c. The Applicant submits that the prior art fails to teach all of the limitations of each of the new claims.

For the foregoing reasons, reconsideration and allowance of the claims of the application as amended is requested. The Examiner is encouraged to telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

Respectfully submitted,

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